

### GORE. Low Charging Trackless Cables

for High Flex Cleanroom Applications

# Increased reliability and higher throughput by preventing electrostatic buildup

Advancing design and production technologies in flat panel and semiconductor manufacturing equipment have made it possible for the industry to move toward higher density designs. This trend has enabled the development of multi-functional, highspeed devices that are in high demand from the global market. In turn, these higher density designs have also increased the susceptibility of flat panel displays and Integrate Circuits (IC) to damage associated with electrostatic buildup.

In addition, electrostatic voltage that builds up over time has shown to attract particles in the equipment microenvironment. Particle attraction on the outer surface of a moving cleanroom cable system can result in uncontrolled particulation. All of these effects can be substantial with reduced yield, increased maintenance cycles and higher overall costs.

GORE<sup>®</sup> Low Charging Trackless Cables help prevent triboelectric charge and voltage buildup compared to standard GORE<sup>®</sup> Trackless High Flex Cables and protect against ESD events (Table 1). Engineered with a new non-carbon based material, this next generation cable system prevents surface charge buildup and eliminates uncontrolled particulation by reducing particle attraction to help significantly reduce ESD-related failures and increase yield.





### Benefits of GORE<sup>®</sup> Low Charging Trackless Cables

- Non-carbon based, dissipative materials prevent electrostatic buildup
- No particle attraction, reduce product damage, prevent noise interference
- Low-particulating material certified to ISO Class 1 up to 1 Mio flex cycle
- Easy retrofit due to 100% compatibility with standard GORE® Trackless High Flex Cables
- No complex grounding system required

Gore's low charging trackless cable technology is the first of its kind in the industry and can be used in an ESD-sensitive environment without any additional installation effort. This unique technology does not require any additional equipment or complex grounding systems to perform. It also eliminates the need for ionizers that are costly to calibrate and maintain. GORE<sup>®</sup> Low Charging Trackless Cables are 100% compatible with standard GORE<sup>®</sup> Trackless High Flex Cables for easy retrofit.

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#### **TABLE 1: PRODUCT SPECIFICATIONS**

	Property	Value
ELECTRICAL	Surface Resistance (Ohm) (ASTM-D257 at 45% rH, 23°C)ª	≤ 10 <sup>9</sup>
	Charge Decay (sec.) (DIN-EN 1149-5: 2008-04 at 45% rH, 23°C)ª Typical (sec.)	≤ 4 ≪1
	Voltage Buildup (Volts) (PLFWI-2730 up to 1000 Cycles) <sup>a</sup>	≤ 100
MECHANICAL	Jacket Material	Expanded PTFE Composite
	Jacket Color	White
	Flex Life (Cycles) (BR. 50 mm up to 4G Accelerations)	> 10 million
ENVIRONMENTAL	Operating Relative Humidity (rH %)	45 ± 15
	Operating Temperature (°C)	23 ± 5
	Cleanliness Class (ISO 14644-1 up to 1 Mio Flex Cycle) <sup>b</sup>	Class 1

<sup>a</sup> Test method details available upon request. Results may vary under different conditions.

<sup>b</sup> Based on Anti-ESD Trackless Cable, GKT-FTFH-01-A, Serial Number 14111802. Qualification report available upon request.

#### **ORDERING INFORMATION**

For more information or to place an order for GORE<sup>®</sup> Low Charging Trackless Cables, please contact a Gore representative at gore.com/contact.

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